

Work Order ID 127960

December-18-14 9:49:39 AM

127960

Page 1

Item ID: D4808-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Spherical Bearing
 Start Date: 12/18/14 Start Qty: 30.00 ***30*** Cust Item ID:
 Required Date: 12/26/14 Req'd Qty: 30.00 ***30*** Customer:
 Reference:

Approvals: Process Plan: W Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4808	REV. B

100 PURCHASING 0.00

100

Purchasing

Purchasing

Memo

Issue P/O: 26703

Purchase part as per Dwg

Possible supplier: Rod Ends mechanical

P/N: HAB-4TG or HAB-4TG-500

Material release note required

CY 14/12/18 30

110 Receive & Inspect for Damage & Mat'l Certs 0.00

110

Packaging

Packaging

Memo

Ensure certificate of conformity is attached

30x SP 14-12-23

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Page 2

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00				(30)	15-01-07		DAS 9 9-89
Quality Control									

130	Identify as per dwg & Stock Location: <u>S7128</u>	0.00							
130									
Packaging	Memo	0.00				(30x)			DAS 46 9-89
Packaging									JAN 06 2015

140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

15/1/7 *[Signature]*
[Signature]
 15-01-06

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D4808-3

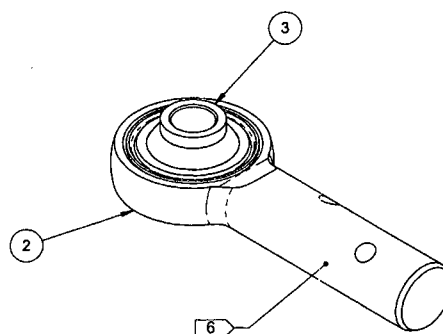
Required Date: 12/26/14

Required Qty: 30.00

Comments: IPP revA 12.01.30 New Issue EC verified by:DD

[illegible]

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION
1	X	D4808-041	ROD END BEARING ASSEMBLY
2	1	D4808-1	ROD END
3	1	D4808-3	SPHERICAL BEARING



D4808-041 ROD END BEARING ASSEMBLY

NOTES:

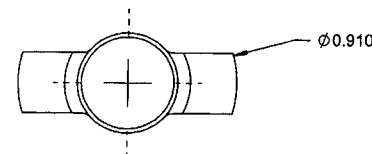
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.10 lbs
- 8) SWAGE D4808-3 BEARING INTO D4808-1 ROD END PER DART QSI 002 4.3
USING HIGH PERFORMANCE VEHICLE ENGINEERING SWAGING TOOL SWAG-4HM

B	D4808-3 WAS D4596-1 (ZN D4-1). REVISED NOTE 8 (ZN A8-1). ADDED D4808-3 (ZN A5-3).	AK	14.12.01
A	NEW ISSUE	RF	13.08.18
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AK		
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	JLM	D4808	SHEET 1 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	ROD END BEARING	NTS
DATE	14.12.01	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

RELEASED
2014-12-17

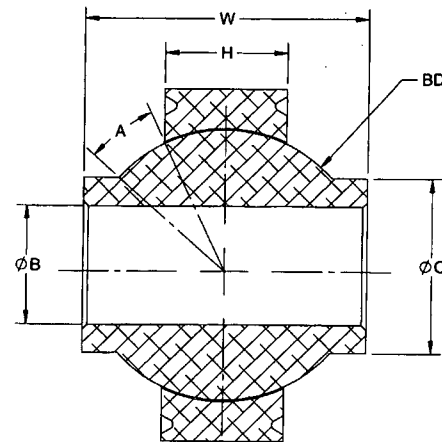
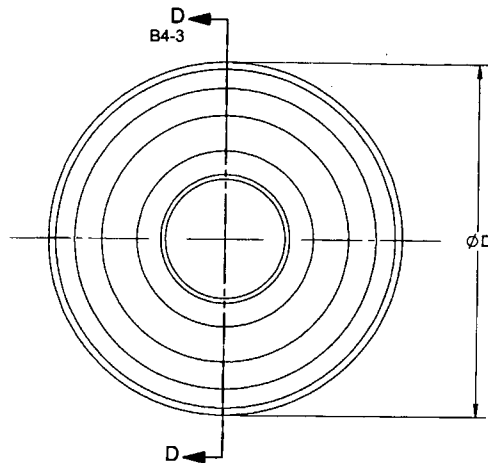
delo
127960



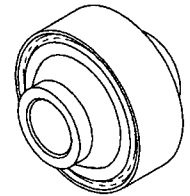
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AK		
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	JLM	D4808	SHEET 2 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	ROD END BEARING	NTS
DATE	14.12.01 THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		

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SPECIFICATION CONTROL DRAWING



SECTION D-D
D6-3



DART PART NUMBER	DESCRIPTION	MANUFACTURER	MANUFACTURER PART NUMBER	SUPPLIER	"ØB"	"ØD"	"W"	"H"	"ØO"	"BD"	"A"	WEIGHT
D4808-3	SPHERICAL BEARING	AURORA BEARING COMPANY	HAB-4TG OR HAB-4TG-500	ROD ENDS MECHANICAL	0.250	0.740	0.593	0.255	0.390	0.593	24°	0.04 LBS

△ D4808-3 SPHERICAL BEARING

RELEASED
2014-12-17

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: SEE TABLE

APPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	AK	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	JLM	D4808	SHEET 3 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	ROD END BEARING	NTS
DATE	14.12.01	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

ENGINEERING CHANGE NOTICE

DART AEROSPACE LTD

Date: 14.12.01	Job No.:	ADR Yes/No:	ADR Date:	ECN #: 14- 660
Product No.: D407-811		Created By: AK	Approved By: <i>[Signature]</i>	
Product Name: Eagle 407HP ENGINE MODLT		Checked By: HS		

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)	Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
Director of Operations	Y	NF		DQA / QA Coord.	Y	PS/ED	
Production Manager / Coord.	Y	LL/MF		QC Coordinator	Y	PD	
Purchasing Coord.	Y	CL		Customer Support	N	SW/LM	
Production Engineering Coord.	Y	DD/JLM		Customer Technical Support	N	MB/HS	
Production Engineering Coord.	N	DL		Marketing	N	KO/SL	
Customer Order Processing	N	RM/CC		Sales Support Manager	N	CP	

Reason for Change:
Revision to D4808

Documents Affected:
D4808 Rev. B

IF APPLICABLE: NCR: _____ PAR: _____ CAR: _____ CIR: _____ URF: _____

PAPERWORK UPDATE ☐ PARTS MUST COMPLY ☐ PREVIOUS PARTS SATISFACTORY ☒

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Eurocopter France	N			
3	Notify Augusta Westland	N			
4	Manufacturing Licensing Agreement Update	N			

#	Engineering Actions	Reqd	Resp	Notes	Complete
5	Required Documents/Drawings/Item ID's Under Review (URF)	N			
6	Update Master Document List (MDL)	Y	AK	MDL-D407-811 Rev. C	<i>[Signature]</i> 14.12.01 AK
7	Update Document Record (DR)	N			
8	Update Product Compatability Matrix	N			
9	Notify TC / FAA of Change (eg. ICA, 8110-3)	N			
10					

#	Document Control Actions	Reqd	Resp	Notes	Complete
11	Move / Update Electronic Files / Design Journal	Y	KJ		14.12.17 <i>[Signature]</i>
12	Update Product Specification Files (Bluefiles)	N			
13	Update Approved/Preliminary Dwg PDF Files	Y	KJ		14.12.17 <i>[Signature]</i>
14	Update Product Development Summary (STC applications)	N			
15	Update QSI 021 (TC/FAA STC) and/or STC Approval List	N			
16	Create/Update Parts / STC Database	Y	KJ		14.12.17 <i>[Signature]</i>
17	Update / Verify Airworthiness Release Certificate Database	Y	KJ		14.12.17 <i>[Signature]</i>
18	Create / Update Change Record Form / Item Card Database	N			
19	Create / Update Packaging Process Plan (PPP)	N			
20	Red Decals required on Packaging Process Plan (PPP)?	N			
21	Update Controlled Supplier Documents (Qpulse) Database	N			
22	Update Grey Project Binder / Electronic Project Folder	Y	KJ		14.12.17 <i>[Signature]</i>
23	Update D-Part / M-Drawing / DSI / DEO Master Binders	Y	KJ		14.12.17 <i>[Signature]</i>
24	Update "Royalty Paid to" attribute (Parts sold under Dart USA STC's)	N			
25					

Description / Action:

- Update routes/BOMs to reflect new drawing revision.
- Identify previously purchased D4596-1 as D4808-3

*126956 WIP
PO 26703 - Red Ends Meech
updated 14.12.18*

102 ghe

ECN Verified & Complete: _____ Date: _____



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO26703

Purchase Order Date 12/3/2014

PO Print Date 12/18/2014

Page Number 1 of 1

Order From :

VC-ROD001

ROD ENDS MECHANICAL
5155 SPECTRUM WAY UNIT 35
MISSISSAUGA, ON L4W 5A1
CAN

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

REVISED

Contact Name

Vendor Phone 905 629 1438

Ship To Contact

Ship To Phone

Ship Via: FedEx Overnight collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
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1	HAB-4TG AS PER DWG D4808 REV. B AS PER ECN 14-660 B126956	Spherical Bearing	12/8/2014 11/6/2015 12/8/2014	Yes	30.00 Each	\$31.75	\$952.50
---	---	-------------------	---	-----	---------------	---------	----------

Line Total: \$952.50

2	71401-45 Procurement Quality Clauses A005 right of entry A016 personnel qualification A026 certification of material conformance A040 notification of quality escape A043 retention of quality documents	PROCUREMENT QUALITY CLAUSES	12/8/2014 No 12/8/2014		1.00	\$0.00	\$0.00
---	--	--------------------------------	--	--	------	--------	--------

Line Total: \$0.00

PO Total: \$952.50

WCL

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 3

Change Date: 12/18/2014

Rod Ends Mechanical Ltd.

5155 Spectrum Way, Unit 35
Mississauga ON L4W 5A1
Phone: (905) 629-1438 Ext. Fax: (905) 629-3826
info@rod-ends.com
www.rod-ends.com



Packing Slip

DATE December 18, 2014
NUMBER 0000129912
CUSTOMER NO. DARTAERO

BILL TO:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury ON K6A 1K7

SHIP TO:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury ON K6A 1K7

(613) 632-9577 Ext.

(613) 632-9577 Ext.

P.O. NUMBER	SALESPERSON	ORDER DATE	REQ. DATE	ORDER NUMB
PO26703		03-Dec-14		0000129912
F.O.B.	SHIP VIA	TERMS		
Rod Ends	UPS	Net 30 days		
PART NUMBER	UOM	QUANTITY		
DESCRIPTION		REQ.	SHIPPED	B.O.
HAB-4TG Aurora SP FEDEX OVERNIGHT CALL FOR NUMBER SHIP COMPLETE	EA	30	30 ✓	

2014-12-23



AURORA BEARING COMPANY

901 AUCUTT ROAD • MONTGOMERY ILLINOIS 60538-1338

Phone: 630/859-2030
Fax: 630/859-0971

Quality Management System registered to ISO 9001 and AS9100

CERTIFICATE OF CONFORMANCE

This is to certify that all material, parts, and/or processes used on this order are in accordance with the requirements, applicable drawings, and/or specifications called for on:

Customer:	ROD ENDS MECHANICAL	
Purchase Order:	0000011863	
Customer Part No.:	B1266956 REV PA2	
ABC Part No.:	HAB-4TG	
ABC Factory Order	838886	Quantity: 30
FCN Mfg. Lot Control No.:	A0073200	QTY: 30
FCN Mfg. Lot Control No.:		QTY:
FCN Mfg. Lot Control No.:		QTY:
FCN Mfg. Lot Control No.:		QTY:
FCN Mfg. Lot Control No.:		QTY:
FCN Mfg. Lot Control No.:		QTY:

And that test reports governing this material and all processes are on file and subject to examination by authorized personnel.

Comments:

Authorized Signature

SCOTT BLANK
QUALITY ASSURANCE MANAGER

Title

12/8/2014

Date

P/N:AXAM-4-FBL
P.O.#:155633
QUANTITY:2188PCS
LOT.:1310150004
FCN:A7425 CLASS C

JIANGYIN XINGCHENG SPECIAL STEEL CO., LTD

江阴兴澄特种钢铁有限公司

INSPECTION CERTIFICATE

产品质量证明书

买方(TUE BUYER:)

合同号(ORDER NO.)

信用证号(L/C NO.)

地址(ADDRESS:)

NO.297 BINJIANG(E)ROAD,JIANGYIN JIANGSU,CHINA

证书号(CERTIFICATE NO.)

G1200000030892

日期(DATE:) 04/30/2012

钢号	炉号	技术条件	交货状态	尺寸(毫米)	长度(米)	数量	净重(公斤)
GRADE	HEAT NO	SPECIFICATION	CONDITION OF DELIVERY	SIZE(mm)	LENGTH(m)	QUANTITY	NET WEIGHT(kg)
52100	H11200382XX	AMS 6440 P	ANNEALED CONDITION	Φ 17	6	*	25430

化学成分 CHEMICAL COMPOSITION(%):

COMPOSITION (%)	C	Mn	Si	P	S	Cr	Ni	Mo	Cu
标准值STANDARD	0.93-1.05	0.25-0.45	0.15-0.35	≤0.025	≤0.015	1.35-1.60	≤0.25	≤0.10	≤0.30
检验值 RESULT	1.02	0.40	0.30	0.010	0.010	1.50	0.04	0.02	0.05
COMPOSITION (%)	Al	O	Ti	B	V	W			
标准值STANDARD	≤0.050	≤0.0015							
检验值 RESULT	0.012	0.00110							

试验类别 DESCRIPTION OF TEST:

脱碳层 DECARBURIZATION:

5 个 PIECE 0.08-0.10mm

机械性能 MECHANICAL PROPERTY:

项目 (PROPERTY):	σ_b (MPa) (抗拉)	$\sigma_{0.2}$ (MPa) (屈服)	δ_5 (%) 延展率	ψ (%) (截面收缩率)	Ak(J/cm ²) 冲击			
标准值(STANDARD)								
检验值 (RESULT):								

出厂硬度 CONDITION OF DELIVERY, ANNEALED HARDNESS IS 1 PCS 192HB

淬火硬度 QUENCHING HARDNESS IS: 1 PCS OF 64 HRC

夹杂物 NON-METALLICS T: A=1.5 B=1.0 C=0.5 D=1.0

1 个 PIECE H: A=0.5 B=0 C=0.5 D=0

检查员

INSPECTOR

抄

Translated by Impro



DEC 08 2014

WZ

LAB-4TG

A0073200